



## WORKPLACE SAFETY AND HEALTH IN IOWA



*From The  
National Institute for Occupational Safety and Health*

### State Profile 2002

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*Delivering on the Nation's promise:  
Safety and health at work for all people through prevention.*

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### The National Institute for Occupational Safety and Health

NIOSH is the primary federal agency responsible for conducting research and making recommendations for the prevention of work-related illness and injury. NIOSH is located in the Department of Health and Human Services in the Centers for Disease Control and Prevention. The NIOSH mission is to provide national and world leadership to prevent work-related illness, injury, disability, and death by gathering information, conducting scientific research, and translating the knowledge gained into products and services. As part of its mission, NIOSH supports programs in every state to improve the health and safety of workers. NIOSH has developed this document to highlight recent NIOSH programs important to workers and employers in Iowa.

### The Burden of Occupational Illness and Injury in Iowa

- In Iowa, there are approximately 1.5 million individuals employed in the workforce.<sup>1</sup>
- In 2000, 71 workers died as a result of workplace injuries.<sup>2</sup>
- The agriculture, forestry, and fishing industry had the highest number of fatalities, followed second by transportation and public utilities, and third by construction.<sup>2</sup>
- In 1999, the most recent year for which data are available, the rate of fatal workplace injuries was 5.1 deaths per 100,000 workers—above the national average rate of 4.5 deaths per 100,000 workers.<sup>2</sup>
- In 2000, there were 96,100 nonfatal workplace injuries and illnesses in Iowa.<sup>3</sup>

### The Cost of Occupational Injury and Illness in Iowa

In 2000, the most recent year for which data are available, a total of \$328.9 million was paid for workers' compensation claims by Iowa private insurers and self-insured employers.<sup>4</sup> This figure does not include compensation paid to workers employed by the federal government and also underestimates the total financial burden for private sector businesses, since only a fraction of health care costs and earnings lost through work injuries and illnesses is covered by workers' compensation. Chronic occupational illnesses like cancer are substantially under-reported in workers' compensation systems because work-relatedness is often difficult to establish.

## **How NIOSH Prevents Worker Injuries and Diseases in Iowa**

### **Health Hazard Evaluations (HHEs) and Technical Assistance**

NIOSH evaluates workplace hazards and recommends solutions when requested by employers, workers, or state or federal agencies. Since 1993, NIOSH has responded to 25 requests for HHEs in Iowa in a variety of industrial settings, including the following example:

#### ***Forest City, Iowa: Evaluation of Exposure to Airborne Wood Dust***

In April 2000, NIOSH responded to a request for an HHE from employees at the sawmill building of a motor home manufacturing company in Forest City, Iowa. The HHE request expressed concern that employees were exposed to airborne wood dust during the production of interior components of motor homes. NIOSH investigators concluded that all employees sampled had exposures to airborne wood dust below the U.S. Occupational Safety and Health Administration's limits. Several employees had exposures slightly above the NIOSH recommended limits. Recommendations to employers included re-evaluating the design of existing local exhaust ventilation; providing local exhaust ventilation to all woodworking equipment; continuing a regular schedule of air sampling for wood dust, particularly when levels of production and work activity rise or work processes change; and initiating medical monitoring of employees.

### **Fatality Assessment and Control Evaluation (FACE) Investigations**

NIOSH developed the FACE program to identify work situations with a high risk of fatality and to formulate and disseminate prevention strategies. In Iowa, FACE is conducted by the Iowa Department of Public Health under a cooperative agreement with NIOSH. Since 1995, there have been 57 FACE investigations in Iowa.

### **Fire Fighter Fatality Investigation and Prevention Program**

The purpose of the NIOSH Fire Fighter Fatality Investigation and Prevention Program is to determine factors that cause or contribute to fire fighter deaths suffered in the line of duty. NIOSH uses data from these investigations to generate fatality investigation reports and a database of case results that guides the development of prevention and intervention activities. Since 1997, there have been five fire fighter fatality investigations in Iowa.

### **Building State Capacity**

#### ***State-Based Surveillance***

NIOSH funds the Adult Blood Lead Epidemiology and Surveillance Program (ABLES) in the Iowa Department of Public Health. Through ABLES, Public Health Department staff track and respond to cases of excessive lead exposure in adults which can cause a variety of adverse health outcomes such as kidney or nervous system damage and potential infertility.

#### ***Great Plains Center for Agricultural Health***

NIOSH funds the Great Plains Center for Agricultural Health, one of ten NIOSH Centers for Agricultural Disease and Injury Research, Education, and Prevention nationwide. Based at the University of Iowa's Institute for Rural and Environmental Health, the Center has been a vital resource in agricultural health and safety for the region since 1990. During 1996-2001, work at the Center resulted in 218 publications and 367 presentations. During the same period, 32 training courses were provided, 26 graduate students were supported, and 50 meetings were sponsored.

### ***Heartland Education and Research Center (ERC)***

NIOSH funds the Heartland Center for Occupational Health and Safety, one of 16 NIOSH ERCs nationwide. The ERC, based at the College of Public Health, University of Iowa, provides graduate training, continuing education, and outreach programs in the region, which has rates of occupational disease and injury higher than those of the nation. Training is provided in occupational medicine, occupational health nursing, and industrial hygiene. In fiscal year 2001, 39 students were enrolled and six were graduated. Twenty-two short courses were conducted for 483 practicing professionals.

### **Extramural Programs Funded by NIOSH**

The following are examples of recent research contracts, research grants, training grants, or cooperative agreements funded by NIOSH in the state of Iowa.

#### ***Ventilation to Reduce Airborne Contaminants***

Upper airway inflammation, an asthma-like syndrome, and chronic airflow limitations are recognized respiratory diseases of swine farmers. Studies have shown that airborne contaminants in swine confinements may be a hazard to workers. With support from NIOSH, researchers at the University of Iowa are conducting an analysis of total dust concentration, ammonia levels, temperature, and humidity to design an automated ventilation system that will increase lung function of workers, reduce contaminant levels, and minimize costs.

#### ***Carpal Tunnel Syndrome Among Construction Workers***

NIOSH funds a Special Emphasis Research Career Award with the University of Iowa to examine the prevalence of carpal tunnel syndrome among construction apprentices. The research will compare data between 350 construction apprentices who have low exposure to hand and wrist-intensive work and 430 apprentices in trades that have high exposure (sheet metal, electrical, plumbing workers).

#### ***Community Partners for Healthy Farming***

NIOSH has supported efforts by the University of Iowa to motivate safer behaviors among farmers in order to reduce the high rates of farm-related fatalities, injuries, and occupational illnesses. A Certified State Farm (CSF) program was developed in 1996 that provides reduced health insurance premiums and includes preventive health screening, an on-farm safety review, individualized education specific to hazards on participating farms, and a mental health counseling component. NIOSH is currently funding an evaluation of the effectiveness of a pilot CSF program implemented on 150 randomly selected certified farms in northwestern Iowa, compared to 150 control farms.

*Additional information regarding NIOSH services and activities can be accessed through the NIOSH home page at <http://www.cdc.gov/niosh/homepage.html> or by calling the NIOSH 800-number at 1-800-356-NIOSH (1-800-356-4674).*

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<sup>1</sup>U.S. Department of Labor (DOL), Bureau of Labor Statistics (BLS), Local Area Unemployment Statistics, Current Population Survey, 2000.

<sup>2</sup>DOL, BLS in cooperation with state and federal agencies, Census of Fatal Occupational Injuries, 1999-2000.

<sup>3</sup>DOL, BLS in cooperation with participating state agencies, Survey of Occupational Injuries and Illnesses, 2000.

<sup>4</sup>National Academy of Social Insurance, *Workers' Compensation: Benefits, Coverage, and Costs, 2000 New Estimates*, May 2002.

